REMARKS

By this amendment, claim 1 has been amended in the application. Currently, claims 1, 11-12 and 14 are pending in the application.

Claims 1, 11 and 12 were rejected under 35 USC 103(a) as being obvious over Komori et al. (U.S. Patent No. 6,046,937) in view of Yoshino et al. (U.S. Application Publication No. 2002-0083282). Claim 14 was rejected under 35 USC 103(a) as being obvious over Komori et al. in view of Shibazaki et al. (U.S. Application Publication No. 2001-0014933) and further in view of Yoshino et al.

These rejections are respectfully traversed in view of the amendments to the claims and the remarks below.

The present invention relates to a readable and writable recording medium, and a data processing apparatus and data processing method for processing data stored in the recording medium (see page 1, lines 8-11 of the specification).

In Fig. 1, a recording medium 100 includes a host interface part 110, a controller 120, a recording area 130, an update notification part 140 and a medium ID holder 150 (see page 8, lines 7-10 of the specification).

In Fig. 3, a data processing device 200 receives the recording medium 100 to perform data processing and includes a slot 210, an input/output processor 220, a data processor 230, an user input processor 240 and a display processor 250 (see page 13, lines 4-8 of the specification).

As shown in Fig. 8, an index file 300 is a file which stores the information of a plurality of contents files and has fields for storing information including a value of the medium-specific ID 150, update information in the update notification part 140, the number of contents files recorded in the recording medium 100, total playback time of the contents file recorded in the recording medium 100, information in each contents file and play list describing playback order of the contents files (see page 32, lines 4-14 of the specification).

Fig. 9 is a flowchart showing an operation sequence of the data processing apparatus 200 in the case where the recording medium 100 is mounted to the data processing apparatus 200.

At the step S902, the data processor 230 reads an index file 300 of the recording medium 100 attached to the slot 210 via the input/output processor 220 on the memory. The information in the search storage area 132 is used as positional information of the index file 300 in the data storage area 131. At a step S903, the data processor 230 reads the value of the update notification

part 140 of the recording medium 100 attached to the slot 210 via

the input/output processor 220 and temporarily stores the value

on the memory.

In step S904, the update information in the update

notification part 140 read at the step S903 is compared to the

update information in the update information field of the index

file 300 read at the step S902. When both update information

correspond to each other, the operation proceeds to processing of

step S905. When both update information do not correspond to

each other, the operation proceeds to processing of step S906.

At the step S905, after the index file 300 of the recording

medium 100 attached to the slot 210 is created, the data

processor 230 determines that data in the recording area 130 is

not updated. Then, the processing using the information in the

index file 300 is performed. The processing using the

information in the index file 300 is to output a list of the

contents data, for example, stored in the recording medium 100 to

the display processor 250.

In the step S906, the data processor 230 performs processing

without using the index file 300 regardless of the existence of

the index file 300. For example, information in the data search

information storage area 132 of the recording medium 100 is read

and the list of the contents data stored in the recording medium

100 is output to the display processor 250 (see page 34, line 1 – page 35, line 23 of the specification).

Fig. 12 is a flowchart showing an operation sequence in the case where the recording medium 100 receives a command from the data processing apparatus 200. At step S1201, when receiving the command from the data processing apparatus 200, the host interface part 110 notifies the command to the controller 120. At step S1202, the controller 120 determines the type of the command notified at the step S1201 and determines whether or not the command is a command to update the recording area 130. The command to update the recording area 130 is, for example, the write command to write the data or the erase command to erase the data. When it is the command to update, the operation proceeds to a processing at a step S1203. When it is the other command, the operation proceeds to processing at the step S1206. The other command is, for example, the read command to read the data.

At the step S1203, the controller 120 determines whether or not it is the command to first update the recording area 130 after initialization processing.

After the initialization processing, the recording medium 100 updates the value of the update notification part 140 immediately before the data of the recording area 130 is updated.

In embodiment 3 of the present invention, only one update is required after initialization. Thus, when the recording medium is mounted to the data processing apparatus and continuously used without being removed, rewriting of the update information becomes unnecessary, thereby shortening the processing time (see page 44, line 9 – page 46, line 19 of the specification).

By this amendment, independent claim 1 has been amended to recite "update information in said update notification part is updated only immediately before data of said recording area is first updated after initialization processing of said recording medium conducted at the time when the recording medium is inserted into said data processing apparatus".

The amendment to claim 1 clarifies the initialization processing which is performed every time when the recording medium is inserted into the processing apparatus in the present invention.

These claimed features are not shown or suggested by Komori et al. in view of Yoshino et al. and Komori et al. in view of Shibazaki et al. and further in view of Yoshino et al.

Komori et al. relates to an electronic control unit, which executes on-board rewriting of control programs and control data

used for regulating operations of predetermined mechanisms or objects to be controlled (see col. 1, lines 14-17).

Komori et al. disclose that in Fig. 1, an electronic control unit (ECU) 2 is mounted on a vehicle (automobile) for controlling an internal combustion engine. The ECU 2 comprises sensors 4, an input processing circuit (IPC) 6, a microcomputer 8, driving actuators (ACT) 10, an output circuit (OC) 12, an ignition switch 17 and a power supply circuit 18 (see col. 4, lines 16-34).

Komori et al. also disclose that the microcomputer 8 comprises a known central processing unit (CPU) 20, a nonvolatile flash memory 22, a masked ROM 24 for storing programs (more particularly, data constituting programs), a volatile RAM 26 and an input/output(I/O) circuit 28 (see col. 4, lines 41-48).

Komori et al. also disclose that the flash memory 22 is a nonvolatile read-only memory capable of electrically erasing and rewriting contents therein (electrically rewritable ROM) (see col. 4, lines 53-54).

Komori et al. do not disclose that update information in the update notification part is updated only immediately before data of the recording area is first updated after initialization processing of the recording medium conducted at the time when the recording medium is inserted into the data processing apparatus as claimed in independent claim 1.

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Komori et al. also do not disclose the step of determining
whether or not data of said recording area in said recording
medium has been updated after said data was recorded by
determining whether or not update information of field in the
recording area read from said recording medium corresponds to
update information in said update notification part read from
said recording medium as claimed in independent claim 14.

For these reasons, it is believed that Komori et al. do not
show or suggest the presently claimed features of the present
invention. Applicants also submit that Yoshino et al. do not
make up for the deficiencies in Komori et al.

Yoshino et al. relate to data processing devices and data
processing methods, and program providing media used therewith
(see page 1, paragraph [0002]).

Yoshino et al. disclose that with the rapid spread of the
internet in recent years and the spread of compact mobile players
and portable game machines, the distribution of various types of
software data, such as music data, game programs, and image data,
via a network such as the internet or by storage media, such as
digital versatile disks (DVDs), compact disks (CDs), and memory
cards, is rapidly increasing (see page 1, paragraph [0004]).

Yoshino et al. also disclose that a media 1 includes a
control unit 211 that controls the input and output of data, and

a memory unit 212 that stores the content. The memory unit 212

not only stores the content together with corresponding header

information, but also stores a media identifier (ID) as

identification information unique to each media, and a block

permission table (BPT) as an access permission table describing

memory-access control information (see page 5, paragraph [0095]).

Yoshino et al. also disclose that Fig. 11 is a flowchart

showing a process in which a media creator sets a BPT (Block

Permission Table) in media 1 having no mutual authentication

processing function (see page 10, paragraphs [0282] - [0284).

The Examiner believed that the initialization process was

shown by the setting of block permissions in paragraphs 0283 and

0284. However, in these paragraphs, Yoshino et al. disclose the

setting of the block permission table (BPT) and this is conducted

only once at the time of manufacturing not every time the

recording medium is inserted into the processing apparatus.

Therefore, Yoshino et al. do not disclose that update

information in said update notification part is updated only

immediately before data of said recording area is first updated

after initialization processing of said recording medium

conducted at the time when the recording medium is inserted into

the data processing apparatus as claimed in independent claim 1.

Yoshino et al. also do not disclose the step of determining whether or not data of said recording area in said recording medium has been updated after said data was recorded by determining whether or not update information of field in the recording area read from said recording medium corresponds to update information in said update notification part read from said recording medium as claimed in independent claim 14.

Applicants respectfully submit that it would not have been obvious to one of ordinary skill in the art to combine the electronic control unit (EUC) 2 mounted on a vehicle (automobile) of Komori et al. and the media creator of Yoshino et al. to render the present claims obvious. Specifically, applicants note that the Examiner admitted that Komori et al. do not disclose that the update information is updated only for after initialization processing. The Examiner believed that Yoshino et al. disclosed initialization processing. However, applicants respectfully submit that the presently claimed features cannot be achieved by a combination of these references.

Even if the electric control unit of Komori et al. had an initialization process (which is not disclosed or suggested in Komori et al.), the update information is not updated after initialization processing. According to the recording medium of the present invention, only one update is required after

initialization as described in paragraph [0095] of the specification.

For these reasons, it is believed that Yoshino et al. do not show or suggest the presently claimed features of the present invention.

Applicants also submit that Shibazaki et al. when combined with Komori et al. and also combined with Yoshino et al. do not render the present claims obvious.

Shibazaki et al. relate to a method of producing a memory management table that has control over memories having a function to hold data at a time of power cut-off and manages identifier information of memory areas to be data storage destinations designated by a logical address issued by a host device, and to a memory device for which the method is employed (see page 1, paragraph [0001]).

Shibazaki et al. disclose that a memory device 1 comprises one or a plurality of memories 10, a CPU 11, a controller 12 and a bus 13 (see page 2, paragraph [0047]). Shibazaki et al. also discloses a slot for a recording medium in paragraph 0062.

However, Shibazaki et al. do not disclose that update information in said update notification part is updated only immediately before data of said recording area is first updated after initialization processing of said recording medium

conducted at the time when the recording medium is inserted into the data processing apparatus as claimed in independent claim 1.

Shibazaki et al. also do not disclose the step of determining whether or not data of said recording area in said recording medium has been updated after said data was recorded by determining whether or not update information of field in the recording area read from said recording medium corresponds to update information in said update notification part read from said recording medium as claimed in independent claim 14.

In this combination of references, the Examiner refers to paragraphs 0244, 0245, 0474 and 0475 in Yoshino et al. The Examiner believed that the revocation list was the update information of the present invention. However, the revocation list is revoked information on inappropriate media and contents as shown in paragraph 0239 in Yoshino et al. On the other hand, the value of update information is the number of times that the recording medium may have been updated as shown in paragraph 0020 in the present invention.

It is therefore respectfully submitted that Komori et al., Shibazaki et al. and Yoshino et al., individually or in any combination, do not teach, disclose or suggest the presently claimed invention and it would not have been obvious to one of ordinary skill in the art to combine these references to render

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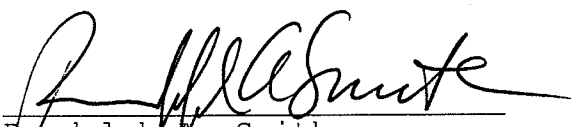November 17, 2009

the present claims obvious. None of these references show or

suggest the update information aspects of the claimed invention.

In view of foregoing claim amendments and remarks, it is

respectfully submitted that the application is now in condition

for allowance and an action to this effect is respectfully

requested.

If there are any questions or concerns regarding the

amendments or these remarks, the Examiner is requested to

telephone the undersigned at the telephone number listed below.

Respectfully submitted,

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